



WR File NR: CS4-02398CTCL@33  
WR Doc ID: 4552109

## State of Washington Report of Examination for Water Right Change

<b>PRIORITY DATE</b>	<b>WATER RIGHT NUMBER</b>
June 30, 1896	Ecology Control Number: CS4-02398CTCL@33 Certificate Number: S4-84815-J

<b>MAILING ADDRESS</b>	<b>SITE ADDRESS (IF DIFFERENT)</b>
CATHOLIC BISHOP OF YAKIMA 5301 TIETON DRIVE, SUITE A YAKIMA, WA 98908-3479	17740 AHTANUM RD. YAKIMA, WA 98903-9135

### Total Quantity Authorized for Withdrawal or Diversion

<b>DIVERSION RATE</b>	<b>UNITS</b>	<b>ANNUAL QUANTITY (AC-FT/YR)</b>
0.12 <sup>1</sup>	CFS	19.95 <sup>1</sup>

### Purpose

PURPOSE	DIVERSION RATE		UNITS	ANNUAL QUANTITY (AC-FT/YR)		PERIOD OF USE (mm/dd)
	ADDITIVE	NON-ADDITIVE		ADDITIVE	NON-ADDITIVE	
Irrigation of 11.6 acres	0.12 <sup>1</sup>		CFS	19.95 <sup>1</sup>		04/15 – 07/10

### REMARKS

The subject right is the primary irrigation right.

IRRIGATED ACRES		PUBLIC WATER SYSTEM INFORMATION	
ADDITIVE	NON-ADDITIVE	WATER SYSTEM ID	CONNECTIONS
11.6		N/A	

### Source Location

COUNTY	WATERBODY	TRIBUTARY TO	WATER RESOURCE INVENTORY AREA
Yakima	Bachelor Creek	Ahtanum Creek	37-Yakima

SOURCE FACILITY/DEVICE	PARCEL	WELL TAG	TWN	RNG	SEC	QQ Q	LATITUDE	LONGITUDE
Surface diversion S1	161213-14001	N/A	12 N.	16 E.	13	SE NE	46.53183N	120.75884W

Datum: NAD83/WGS84

<sup>1</sup> When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.12 cfs, 7.13 acre-feet per year can be diverted.

## Place of Use (See Attached Map)

### PARCELS (NOT LISTED FOR SERVICE AREAS)

161213-14001

### LEGAL DESCRIPTION OF AUTHORIZED PLACE OF USE

The East 1,243.87 feet of Government Lot 1 of Section 13, T. 12 N., R. 16 E.W.M., except beginning 761.6 feet south and 385.1 feet east of the northwest corner of Government Lot 1; thence north 250 feet; thence east 125 feet; thence N 5° W 385 feet; thence east 30 feet; thence S 5° E 385 feet; thence east 195 feet; thence south 250 feet; thence west 350 feet to point of beginning; and except 20 foot strip of land beginning 186 feet south of the northwest corner of Lot 1; thence N 84°49' E 734 feet; thence N 38°50' E 189 feet to the north line of Lot 1 (Parcel No. 161213-14001). Answer No. 10.

## Proposed Works

The water supply system consists of a 5-horsepower (hp) pump and a 2-inch flexible intake pipe, and distributed to the applicant's lands by means of 2-inch diameter steel pipe. The property is currently irrigated with handlines and underground sprinkler system.

## Development Schedule

BEGIN PROJECT	COMPLETE PROJECT	PUT WATER TO FULL USE
Begun	Complete	Complete

Washington State Department of Ecology's (Ecology's) findings as documented by this water right change decision are based on the Schedule of Water Rights presented in the Conditional Final Order, Subbasin No. 23, issued April 15, 2009 by the Yakima County Superior Court, and the current Acquavella Draft Schedule of Rights, which is periodically updated when changes are made by the Court. Ecology's decision is subject to any subsequent determination made by the Court, including the Final Decree in Department of Ecology v. Acquavella. Any changes to this water right made by the Court will be reflected on the final certificate of adjudicated water right, which will issue subsequent to entry of the Final Decree in Department of Ecology v. Acquavella.

## Measurement of Water Use

How often must water use be measured?	Record the maximum rate of diversion: <b>Weekly</b> .
How often must water use data be reported to Ecology?	Annually (By January 31 of the following year).
What volume should be reported?	Total annual volume in acre-feet.
What rate should be reported?	Annual peak rate of diversion in cfs.

## Measurements, Monitoring, Metering, and Reporting

An approved measuring device must be installed and maintained for each of the sources identified by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", WAC 173-173.

WAC 173-173 describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements.

Recorded water use data shall be submitted via the Internet. To set up an Internet reporting account, contact the Regional Office. If you do not have Internet access, you can still submit hard copies by contacting the Regional Office for forms to submit your water use data.

\* Nothing here is intended to address anything about any party's duties or rights to regulate water use in Ahtanum Basin.

## Provisions

### Department of Fish and Wildlife Requirement(s)

The intake(s) must be screened in accordance with Department of Fish and Wildlife screening criteria (pursuant to RCW 77.57.010, RCW 77.57.070, and RCW 77.57.040). If you have questions about screening criteria, contact the Department of Fish and Wildlife at:

Department of Fish and Wildlife  
Attention: Habitat Program  
600 Capitol Way N.  
Olympia, WA 98501-1091

Phone: (360) 902-2534  
Email: [habitatprogram@dfw.wa.gov](mailto:habitatprogram@dfw.wa.gov)  
Website: <http://wdfw.wa.gov/conservation/habitat/planning/screening/>

For the Yakima Construction Shop, to obtain technical assistance for your project (509) 575-2104.

### Easement and Right-of-Way

Where the water source and/or water transmission facilities are not wholly located upon land owned by the applicant, issuance of a water right change authorization by this department does not convey a right of access to, or other right to use, land which the applicant does not legally possess. Obtaining such a right is a private matter between applicant and owner of that land.

### Schedule and Inspections

Department of Ecology personnel, upon presentation of proper credentials, will have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices, and associated distribution systems for compliance with water law.

## Findings of Facts

Upon reviewing the investigator's report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find the change of water right as recommended will not be detrimental to existing rights or the public welfare.

Therefore, I ORDER the requested change in the point of diversion under Change Application No. CS4-02398CTCL@33, subject to existing rights and the provisions specified above.

## Your Right To Appeal

This Decision may be appealed pursuant to RCW 34.05.514(3), RCW 90.03.210(2), and Pretrial Order No. 12 entered in *State of Washington, Department of Ecology v. James Acquavella, et al.*, Yakima County Superior Court No. 77-2-01484-5 (the general adjudication of surface water rights in the Yakima River Basin). The person to whom this Decision is issued, if he or she wishes to file an appeal, must file

the notice of appeal with the Yakima County Superior Court **within thirty (30) days of receipt of this Decision**. Appeals must be filed with the Superior Court Clerk's Office, Yakima County Superior Court, 128 North 2<sup>nd</sup> Street, Yakima WA 98901, RE: Yakima River Adjudication. Appeals must be served in accordance with Pretrial Order No. 12, Section III ("Appeals Procedures"). The content of the notice of appeal must conform to RCW 34.05.546. Specifically, the notice of appeal must include:

- The name and mailing address of the appellant;
- Name and address of the appellant's attorney, if any;
- The name and address of the Department of Ecology;
- The specific application number of the decision being appealed;
- A copy of the decision;
- A brief explanation of Ecology's decision;
- Identification of persons who were parties in any adjudicative proceedings that led to Ecology's decision;
- Facts that demonstrate the appellant is entitled to obtain judicial review;
- The appellant's reasons for believing that relief should be granted; and
- A request for relief, specifying the type and extent of relief requested.

The "parties of record" who must be served with copies of the notice of appeal under RCW 34.05.542(3) are limited to the applicant of the decision subject to appeal, Ecology and the Office of the Attorney General.

All others receiving notice of this Decision, who wish to file an appeal, must file the appeal with the Yakima County Superior Court **within thirty (30) days of the date the Order was mailed**. The appeal must be filed in the same manner as described above.

**Please send a copy of your appeal to:**

Thomas Perkow  
Water Resources Program  
Ecology Central Regional Office  
1250 W. Alder St.  
Union Gap, WA+ 98903-0009

Signed at Union Gap, Washington, this \_\_\_\_\_ day of \_\_\_\_\_, 2016.

\_\_\_\_\_  
Thomas Perkow, Acting Section Manager  
Water Resources Program  
Central Regional Office

To find laws and agency rules visit the Washington State Legislature Website: <http://www1.leg.wa.gov/CodeReviser>.

*To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program at 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.*

## INVESTIGATOR'S REPORT

Tyler Roberts, Department of Ecology

Water Right Control Number CS4-02398CTCL@33

Certificate No. S4-84815-J

Court Claim No. 02398

## BACKGROUND

On July 1, 2008, Catholic Bishop of Yakima filed an application with the Washington State Department of Ecology (Ecology) to change the points of diversion under Court Claim No. 02398 in *The State of Washington, Department of Ecology v. James J. Acquavella, et al.* The application was accepted and assigned Control No. CS4-02398CTCL@33. This report serves as the written findings of fact concerning Water Right Application No. CS4-02398CTCL@33.

This change of point of diversion (POD) is being requested by the applicant and many other Subbasin 23 claimants because they are no longer using the PODs confirmed in the 1925 *Acephol Decree*. Thus, the Court requested that the claimants apply to Ecology to seek authorization to change their points of diversion from the point of diversion confirmed in the *Acephol Decree* to the location currently in use. The application and many others were submitted to Ecology to satisfy the request of the Court. WAC 173-152-050(2)(b) allows Ecology to prioritize these applications ahead of other competing applications.

### EXISTING Water Right Attributes

<b>Water Right Owner:</b>	Catholic Bishop of Yakima
<b>Priority Date:</b>	June 30, 1896
<b>Place of Use:</b>	The East 1,243.87 feet of Government Lot 1 of Section 13, T. 12 N., R. 16 E.W.M., except beginning 761.6 feet south and 385.1 feet east of the northwest corner of Government Lot 1; thence north 250 feet; thence east 125 feet; thence N 5° W 385 feet; thence east 30 feet; thence S 5° E 385 feet; thence east 195 feet; thence south 250 feet; thence west 350 feet to point of beginning; and except 20 foot strip of land beginning 186 feet south of the northwest corner of Lot 1; thence N 84°49' E 734 feet; thence N 38°50' E 189 feet to the north line of Lot 1 (Parcel No. 161213-14001). Answer No. 10.

County	Waterbody	Tributary To	WRIA
Yakima	Ahtanum Creek	Yakima River	37 - Lower Yakima

Purpose	Rate	Unit	Ac-ft/yr	Begin Season	End Season
Irrigation of 11.6 acres	0.12 <sup>1</sup>	cfs	19.95 <sup>1</sup>	April 15	July 10

<sup>1</sup> When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.12 cfs, 7.13 acre-feet per year can be diverted.

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Surface diversion (S2)	161213-23002	N/A	12 N.	16 E.	13	Gov't Lot 3	N/A	N/A
Surface diversion (S3)	161213-23002	N/A	12 N.	16 E.	13	Gov't Lot 4	N/A	N/A

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum in NAD83/WGS84.

#### REQUESTED Water Right Attributes

<b>Applicant Name:</b>	Catholic Bishop of Yakima
<b>Date of Application:</b>	June 30, 1896
<b>Place of Use:</b>	The East 1243.87 feet of Government Lot 1 of Section 13, T. 12 N., R. 16 E.W.M., except beginning 761.6 feet south and 385.1 feet east of the northwest corner of Government Lot 1; thence north 250 feet; thence east 125 feet; thence N 5° W 385 feet; thence east 30 feet; thence S 5° E 385 feet; thence east 195 feet; thence south 250 feet; thence west 350 feet to point of beginning; and except 20 foot strip of land beginning 186 feet south of the northwest corner of Lot 1; thence N 84°49' E 734 feet; thence N 38°50' E 189 feet to the north line of Lot 1 (Parcel No. 161213-14001). Answer No. 10.

County	Waterbody	Tributary To	WRIA
Yakima	Bachelor Creek	Ahtanum Creek	37 - Lower Yakima

Purpose	Rate	Unit	Acre-feet/yr	Begin Season	End Season
Irrigation of 11.6 acres	0.12 <sup>1</sup>	cfs	19.95 <sup>1</sup>	April 15	July 10

Source Name	Parcel	Well Tag	Twp	Rng	Sec	QQ Q	Latitude	Longitude
Surface diversion (S1)	161213-14001	N/A	12 N.	16 E.	13	SE NE	46.53183N	120.75884W

CFS = Cubic Feet per Second; Ac-ft/yr = Acre-feet per year; Sec. = Section; QQ Q = Quarter-quarter of a section; WRIA = Water Resource Inventory Area; E.W.M. = East of the Willamette Meridian; Datum in NAD83/WGS84.

#### Legal Requirements for Requested Change

The following is a list of requirements that must be met prior to authorizing the proposed change in point of diversion:

##### *Public Notice*

Public Notice of the application was given in the Yakima Herald-Republic on August 24 and 31, 2014.

No protests were filed against this application.

##### *Consultation with the Department of Fish and Wildlife*

This application was presented to the Yakima River Basin Water Transfer Working Group (WTWG) during monthly meetings from February 26, 2007 through October 1, 2007. The Department of Fish and

Wildlife participates in the WTWG. Ecology received an April 16, 2007 letter from the Department of Fish and Wildlife stating that their primary concern is that each respective water right holder and land owner complies with rules and regulation for the installation of fish screening devices in the State of Washington.

### *State Environmental Policy Act (SEPA)*

A water right application is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met:

- It is a surface water right application for more than 1 cubic foot per second (cfs), unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cfs, so long as that irrigation project will not receive public subsidies.
- It is a groundwater right application for more than 2,250 gallons per minute (gpm).
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above.
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA).
- It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

Because this application does not meet any of these conditions, it is categorically exempt from SEPA and a threshold determination is not required.

### *Water Resources Statutes and Case Law*

#### Chapter 90.03 RCW

RCW 90.03.360 requires metering of all water users within fish critical basins. The Yakima River has been designated a fish critical basin. RCW 77.55.320, RCW 77.55.040, and RCW 77.55.070 require all diversions from surface waters of the state to be screened to protect fish.

RCW 90.03.380(1) provides that a water right that has been put to beneficial use may be changed. The Point of Diversion (POD), place of use, and purpose of use may be changed if it would not result in harm or injury to other water rights.

The Washington Supreme Court has held that the Department of Ecology (Ecology), when processing an application for change or transfer of water right, is required to make a tentative determination of the extent and validity of the right. This is necessary to establish whether a water right is eligible for change (*R.D. Merrill Co. v. PCHB*, 137 Wn.2d 118, 969 P.2d 458 (1999); *Okanogan Wilderness League v. Town of Twisp*, 133 Wn.2d 769, 947 P.2d 732 (1997)). It is not within Ecology's authority to adjudicate or make a final determination of the extent and validity of any water right or claim to a water right, only the Superior Court has such authority.

## INVESTIGATION

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On July 1, 2008, Catholic Bishop of Yakima filed an application with the Washington State Department of Ecology to change a point of diversion under Court Claim No. 02398 in *The State of Washington, Department of Ecology v. James J. Acquavella, et al.* The application was accepted and assigned Control No. CS4-02398CTCL@33. On March 4, 2015 the change application was assigned to Tyler Roberts. Prior to assignment of the application to Roberts, Ecology permit writers Mark Dunbar and Danielle Jansik conducted a site visit with George Marshall of the Ahtanum Irrigation District (AID) on February 24, 2015. Notes from the site visit indicate a visit to the new POD, with GPS points for the requested POD recorded as 46°31'54.588"N, 120°45'31.824"W. The new point of diversion was observed to consist of a 5-hp pump with a flexible 2-inch inlet pipe, and a 2-inch steel outlet pipe. Irrigation equipment observed by Dunbar and Jansik consisted of handlines and an underground sprinkler system. A map outlining attributes of the water right is presented in Attachment 1. Please refer to Attachments 2A-2D for images of current diversion works.

Information from the above-referenced field notes, along with other sources of information, provided the basis for this investigation. These other sources include:

- Documentation submitted with the change application.
- Yakima River Basin Adjudication documentation.
- Applicable RCW and WAC chapters.
- Ecology records.
- Aerial photographs.
- Ecology's Geographic Information System (GIS) data.

There have been no changes in ownership of the land and/or water rights since the date the application was filed in 2008, nor has the right been assigned or subject to a motion to substitute parties filed with the Court. The application is not related to any other change application on file.

The property is located within the Ahtanum Creek Subbasin No. 23, approximately 20.1 miles upstream from the confluence of Ahtanum Creek and the Yakima River. Decades of development in the subbasin have resulted in large tracts of property being divided, subdivided, and transferred to new ownership. The division of land into smaller parcels has made the use of private irrigation ditches impractical or impossible in most cases. With the advancement of technology and new materials available, land owners and irrigators have gradually changed their irrigation practices from gravity fed surface diversions and ditches to pumps located on the owner's property and pressurized sprinkler systems. The change from gravity fed diversions to pressurized systems naturally resulted in a change in location of the POD, which in many cases went undocumented.

The Conditional Final Order (CFO) described the confirmed points of diversion as being within Government Lots 3 and 4. The applicant proposes to change the authorized location of the POD to its current, actual position, which is located in the SE¼NE¼ of Section 13, T. 12 N., R. 16 E.W.M. The new location is approximately 4,770 feet downstream from the most distant confirmed POD.

The CFO confirms 0.12 cfs; 19.95 acre-feet per year for the irrigation of 11.6 acres with a June 30, 1896 priority date. The place of use lies within the E½NE¼ of Section 13, T. 12 N., R. 16 E.W.M. When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama

Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.12 cfs, 7.13 acre-feet per year can be diverted.

The CFO includes a schedule of rights which describes the Court's findings for each surface water claim it confirmed within the Ahtanum Creek subbasin (Subbasin 23). Subsequent to its filing in 2009, the CFO was appealed. The CFO was remanded by the Washington Supreme Court to Yakima Superior Court in 2014.

Ecology is using the Court's schedule of rights for its analysis of potential detriment or injury to existing rights that could result from the proposed change of point of diversion. The schedule of rights is periodically updated when changes are made by the Court.

## History of Water Use

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### *Legal History*

There is a long history of legal actions concerning water rights in the Ahtanum Creek drainage. Water right claimants can be divided into two major groups which have historically asserted the right to use water on Ahtanum Creek:

- Property owners on non-tribal land north of the creek (northside users).
- Property owners and the Yakama Nation on land south of the creek (southside users).

At least six legal proceedings have influenced the allocation of water rights on Ahtanum Creek<sup>2</sup>:

1. 1855 Treaty with the Yakama Nation
2. 1897 *Benton v. Johncox*
3. 1908 "Code Agreement"
4. 1925 *State of Washington v. Annie Wiley Achepohl et al.*
5. 1947 *United States v. Ahtanum Irrigation District*
6. 1977 – Currently in progress; *State of Washington Department of Ecology v. James J. Acquavella, et al.*

*State of Washington Department of Ecology v. James J. Acquavella, et al. (Acquavella)*

The *Acquavella* adjudication began in 1977 and is still in progress at the time of this writing. *Acquavella* is an adjudication of all surface water rights and claims within the entire Yakima River drainage basin, which includes 31 subbasins. The Ahtanum Creek drainage basin is Subbasin No. 23. Ahtanum is the last of the 31 subbasin proceedings in need of completion before a final decree for *Acquavella* can be issued by the Superior Court.

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<sup>2</sup> History taken from *Report of the Court Concerning the Water Rights for the Subbasin 23 (Ahtanum Creek) Volume 48 – Part 1*; "b. Legal History" pp. 36-39; Yakima County Superior Court Cause No. 77-2-01484-5; January 31, 2002.

Due to the complex legal history of the Ahtanum Subbasin No. 23, the court established four criteria that must be met when evaluating the validity of Ahtanum claims:

1. The claimant's predecessor must have been a signatory to the *1908 Code Agreement*.
2. The claimant's predecessor must have participated in the 1925 *Achepohl* proceeding and must have provided evidence of compliance with state law.
3. The claimant, or their predecessor, must have filed an answer in *Ahtanum II*.
4. The claimant, or their predecessor, must have shown that water was beneficially used on the property after 1964, when *United States v. Ahtanum Irrigation District Civil Cause No. 312* was finalized by the *Pope Decree*.

The court concluded that it needed to adhere to both the 1964 *Pope Decree* and the 1925 *Achepohl* proceeding. Keeping that in mind, when the court evaluated claims where *Achepohl* certificates authorized more irrigated acreage than found in the *Pope Decree*, the court awarded a junior water right for the difference, provided there was no evidence of abandonment or relinquishment. A junior right, in this case, had the same priority date as the senior portion of the right and, as stated in the Report of the Court (ROC), "...can only be exercised when the flow in Ahtanum Creek exceeds 62.59 cfs and no uses, including potential storage, are being made of the excess by water right holders on the reservation." The Court later revised its decision concerning junior rights and concluded that junior rights cannot be confirmed.

During the *Acquavella* proceedings the legality of many of the current PODs was called into question. Many claimants were no longer using the PODs confirmed in *Achepohl*. In many cases landowners (or their predecessors) had switched from gravity-flow ditches to pumps placed directly into the creek on or adjacent to the property being irrigated. In many cases, the landowners (or their predecessors) had not fulfilled the legal requirements to change a POD under RCW 90.03.380. Thus, the Court requested that the claimants apply to Ecology to seek authorization to change their PODs from the historic point to the location currently in use. This application and many others were submitted to Ecology to satisfy this request of the Court.

#### *Ahtanum Creek Subbasin Description*

The Ahtanum Creek system is complex. According to the June 2005 Final Programmatic Environmental Impact Statement for the Ahtanum Creek Watershed Restoration Program, the Ahtanum Creek Subbasin can be described as three different reaches. First, the upper reach consists of the North and South Forks of Ahtanum Creek which flow to their confluence near Tampico. The upper reach flows through a combination of managed forest land (North Fork) and tribal land (South Fork). Second, the middle reach begins at the confluence of the North and South Forks and flows to Wiley City. And third, the lower reach starts at Wiley City and flows to confluence with the Yakima River. The majority of irrigation occurs in the middle and lower reaches of the creek, where pasture and hay are the predominant irrigated crops. The middle and lower reaches of Ahtanum Creek are made up of the main channel and two regulated side channels known as Bachelor Creek and Hatton Creek.

#### *Ahtanum Irrigation District*

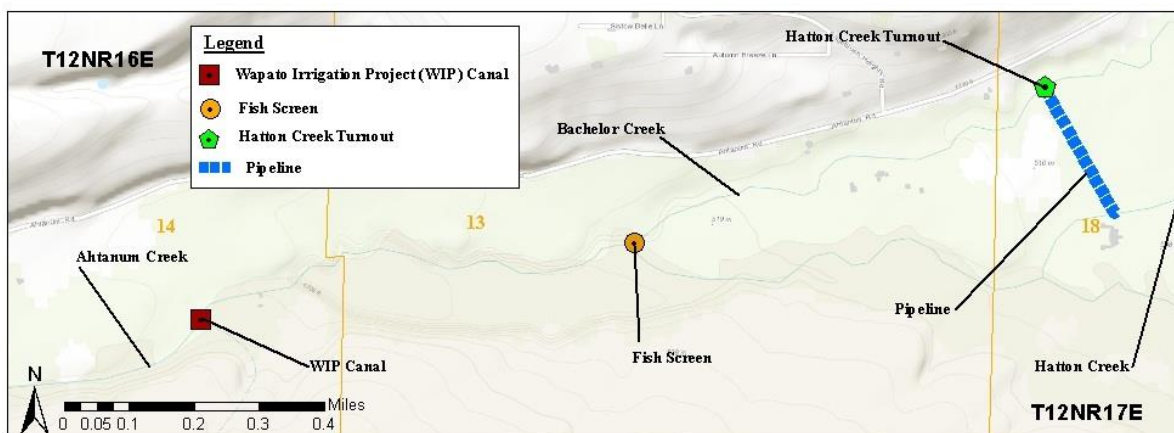
It is important to understand the current relationship between the above mentioned channels in order to make sound determinations on changes in PODs in the Ahtanum system. Many of the irrigation water rights confirmed by the Court are diverted from the smaller channels of Bachelor Creek and

Hatton Creek. These two creeks have historically been considered side channels of Ahtanum Creek, first originating from Ahtanum Creek, and then later joining back up to the main channel at two different points downstream.

In the early 1990s, Ahtanum Irrigation District (AID) physically combined the origination points of both Bachelor and Hatton Creeks and placed a head gate with a large fish screen just downstream of the location where the channel splits. The fish screen is located approximately 2,500 feet east and 2,350 feet south of the northwest corner of Section 13, being within the SW¼NW¼ of Section 13, T. 12 N., R. 16 E.W.M. (see Figure 1). This point is located approximately 3,500 feet downstream from the Wapato Irrigation Project (WIP) canal, which is the POD used for the water users on the Yakama Reservation. Once water flows through the fish screen, it continues through a common channel for approximately 3,800 feet, where there is a continuous-head orifice turnout, which serves as the origination point of Hatton Creek. This point is located approximately 200 feet east and 1,400 feet south from the northwest corner of Section 18, being within the SW¼NW¼ of Section 18, T. 12 N., R. 17 E.W.M. From this point water is diverted through a pipeline, in a southeasterly direction, approximately 700-800 feet under a pasture where it is discharged into the natural flow channel of Hatton Creek.

Fish passage barriers are located on the lower reaches of Hatton and Bachelor Creeks just upstream from Ahtanum Creek. Although the fish passage barriers exist, Washington State Department of Fish and Wildlife Instream Flow biologist Paul LaRiviere found many fish species present in both Bachelor and Hatton Creeks.

**Figure 1: Fish screen and origination point overview.**



Property owners within the district are the individual water right holders with AID managing the distribution of the water to the individual PODs only. AID manages the distribution of water among Bachelor, Hatton, and Ahtanum Creeks at the headgate, regulating the flow among the 3 creeks. AID also manages the diversions of its patrons along the creeks to ensure the priority system is followed.

## Proposed Use

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The applicant proposes to change the point of diversion confirmed by the Court from two points on Ahtanum Creek within Government Lots 3 and 4 of Section 13, T. 12 N., R. 16 E.W.M., to a downstream point on Bachelor Creek within the SE¼NE¼ of Section 13, T. 12 N., R. 16 E.W.M. The water supply system consists of a 5-hp pump and a 2-inch flexible intake pipe, and distributed to the applicant's lands by means of 2-inch diameter steel pipe. No measuring device was observed in fieldnotes provided by Dunbar and Jansik. The property is currently irrigated with handlines and underground sprinkler system.

No other changes are proposed for the subject right.

## Other Rights Appurtenant to the Place of Use

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There are no other water rights appurtenant to the place of use of the subject right.

## Hydrologic/Hydrogeologic Evaluation

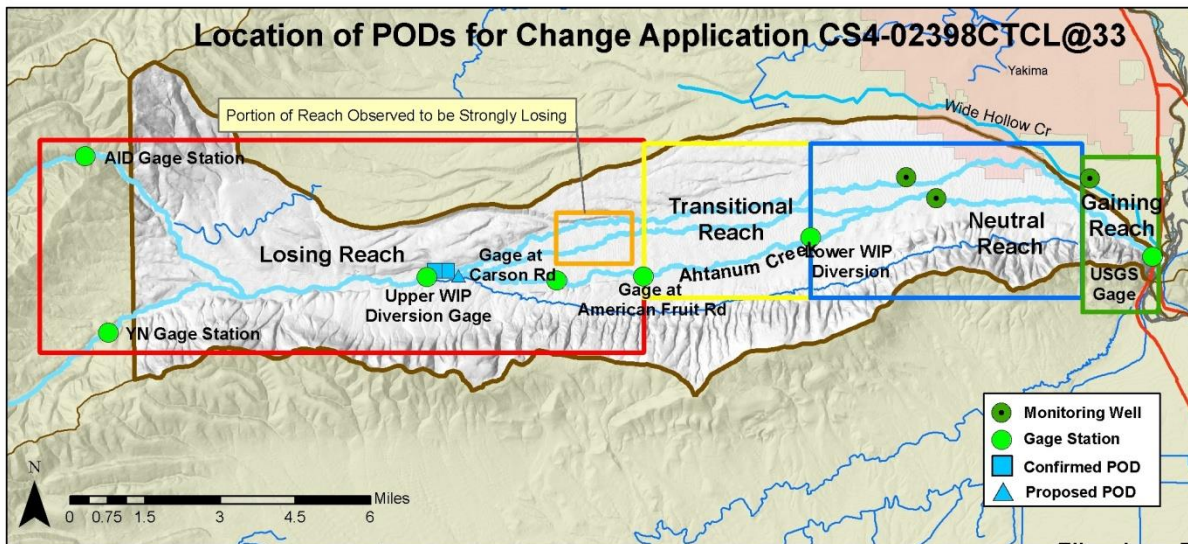
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For the purpose of this evaluation, the region of interest extends from the Yakama Nation and AID gauging stations (Figure 2) to the confluence of Ahtanum Creek with the Yakima River. Previous studies (Foxworthy, 1962; Golder, 2004) have established general classifications regarding the losing/gaining tendency for each of the stream reaches in the Ahtanum Creek watershed. Briefly, a losing reach indicates that the stream has a tendency to discharge water to the aquifer over a given reach. A gaining reach occurs when groundwater is adding water to a creek over a specific reach.

The tendency for each reach to lose or gain was determined by quantifying differences in flows between measurement points, after accounting for diversions. The primary measurement points were on Ahtanum Creek at the Yakama Nation Gauge Station, the AID Gauge Station, Wapato Irrigation Project Diversion, Carson Road, American Fruit Road, and the USGS Gauge at Union Gap (Figure 2). Limited or incomplete data is available for each of these gauges.

Golder (2004) compiled and compared four years of available data. Golder's study indicated a consistent losing reach between the North Fork and South Fork gauge stations and American Fruit Road. Between Carson Road and American Fruit Road, a loss of 2 cfs was observed during the summer and fall (Figure 2).

**Figure 2: Hydrologic properties of Ahtanum Creek system, March through July.**



Limited gauge data is available on Bachelor Creek and Hatton Creeks; G. Marshall (2015, via personal communication) indicated that the reach between Carson Road and Marks Road on Bachelor Creek and Hatton Creeks took longer to “fill” early in the irrigation season, than other areas in the stream reach (orange box, Figure 2). Based on shared depositional history and geologic environment, the tendency for Bachelor Creek and Hatton Creeks to gain or lose water over a given reach is expected to be similar to Ahtanum Creek.

During the irrigation season, Ahtanum Creek transitions from losing to neutral/gaining, east of Marks Road. Golder (2004) indicated that much of the lower portion of the watershed is a neutral reach, however Foxworthy (1962) suggested that the gaining portion may extend further west. The actual timing and location of the transition from losing to neutral is not fixed. It’s dependent on creek flow (and stage or elevation) relative to the groundwater levels.

In the reach between American Fruit Road Gauge and the lower WIP diversion, Golder (2004) identified measured stream gains in the spring and losses in the summer. The neutral and gaining reaches were not extensively discussed in Golder (2004). However, monitoring well data compiled by Foxworthy (1962) provides information regarding the seasonal depth to groundwater in the alluvial aquifer. Alluvial aquifer wells located in the neutral reach have a hydrograph with a slight seasonal variation. For example, the monitoring wells in the neutral reach (circle with dot, Figure 2) had a 2 to 3 foot variation over the year. Groundwater depth ranged from 2.5 to 5 feet below ground surface (bgs). The monitoring well located in the gaining reach (circle with dot, Figure 2) had a groundwater depth of approximately 2 feet bgs and +/-1 foot of variation. The similarity between stream and groundwater elevation support the observation that the eastern portion of the watershed is a gaining reach.

### Impairment Considerations

A table of intervening water rights between the POD confirmed by the Court and the applicant-proposed POD is listed in Table 1.

**Table 1: Intervening water rights.**

<b>Water Right Document No.</b>	<b>Application Change No.</b>	<b>Priority Date</b>	<b>Current Source</b>	<b>Proposed Source</b>
S4-84820-J	CS4-ADJ20VOL3P328	June 30, 1870	Bachelor Creek	Ahtanum Creek
S4-84822-J	CS4-02398CTCL@34	June 30, 1852	Ahtanum Creek	Bachelor Creek
S4-84823-J	CS4-02398CTCL@35	June 30, 1852	Bachelor Creek	Ahtanum Creek
S4-84824-J	NA	June 30, 1888	Bachelor Creek and Hatton Creek	NA

Ahtanum Creek is characterized as a losing stream within the reach between the authorized and proposed points of diversion (or withdrawal). Absent the effects of other water users, there would be less water physically available at the new POD than at the authorized POD. This would be particularly noted during low flow conditions. Since this water right is relatively junior to other water rights within this losing reach, authorizing a move downstream may lead to a call on the junior, on a more frequent basis than would have been the case if the POD remained at the authorized location.

Approval of this change request under Application for Change No. CS4-02398CTCL@33 will not cause impairment of existing rights.

## **RECOMMENDATIONS**

Based on the above investigation and conclusions, I recommend that this request for a change in point of diversion be approved in the amounts and within the limitations listed below and subject to the provisions listed above.

*Purpose of Use and Authorized Quantities*

The amount of water recommended is a maximum limit and the water user may only use that amount of water within the specified limit that is reasonable and beneficial:

Maximum instantaneous diversion rate:  
0.12 cubic feet per second<sup>1</sup>

Maximum annual quantity:  
19.95 acre-feet per year<sup>1</sup>

Purpose and Period of Use:  
Irrigation of 11.6 acres from April 15 through July 10.

Point of Diversion:  
SE¼NE¼, Section 13, Township 12 North, Range 16 E.W.M. (Parcel No. 161213-14001).

Place of Use:  
The East 1,243.87 feet of Government Lot 1 of Section 13, T. 12 N., R. 16 E.W.M., except beginning 761.6 feet south and 385.1 feet east of the northwest corner of Government Lot 1; thence north 250 feet; thence east 125 feet; thence N 5° W 385 feet; thence east 30 feet; thence S 5° E 385 feet; thence east 195 feet; thence south 250 feet; thence west 350 feet to point of beginning; and except 20 foot strip of land beginning 186 feet south of the northwest corner of Lot 1; thence N 84°49' E 734 feet; thence N 38°50' E 189 feet to the north line of Lot 1 (Parcel No. 161213-14001).  
Answer No. 10.

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Tyler Roberts, Report Writer

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Date

To request ADA accommodation including materials in a format for the visually impaired, call Ecology Water Resources Program at 360-407-6872. Persons with impaired hearing may call Washington Relay Service at 711. Persons with speech disability may call TTY at 877-833-6341.

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<sup>1</sup> When water is available in excess of that needed to satisfy all confirmed water rights both on and off the Yakama Reservation and any water needed to satisfy the Yakama Nation's minimum instream flow right for fish and other aquatic life, an additional 0.12 cfs, 19.95 acre-feet per year can be diverted.

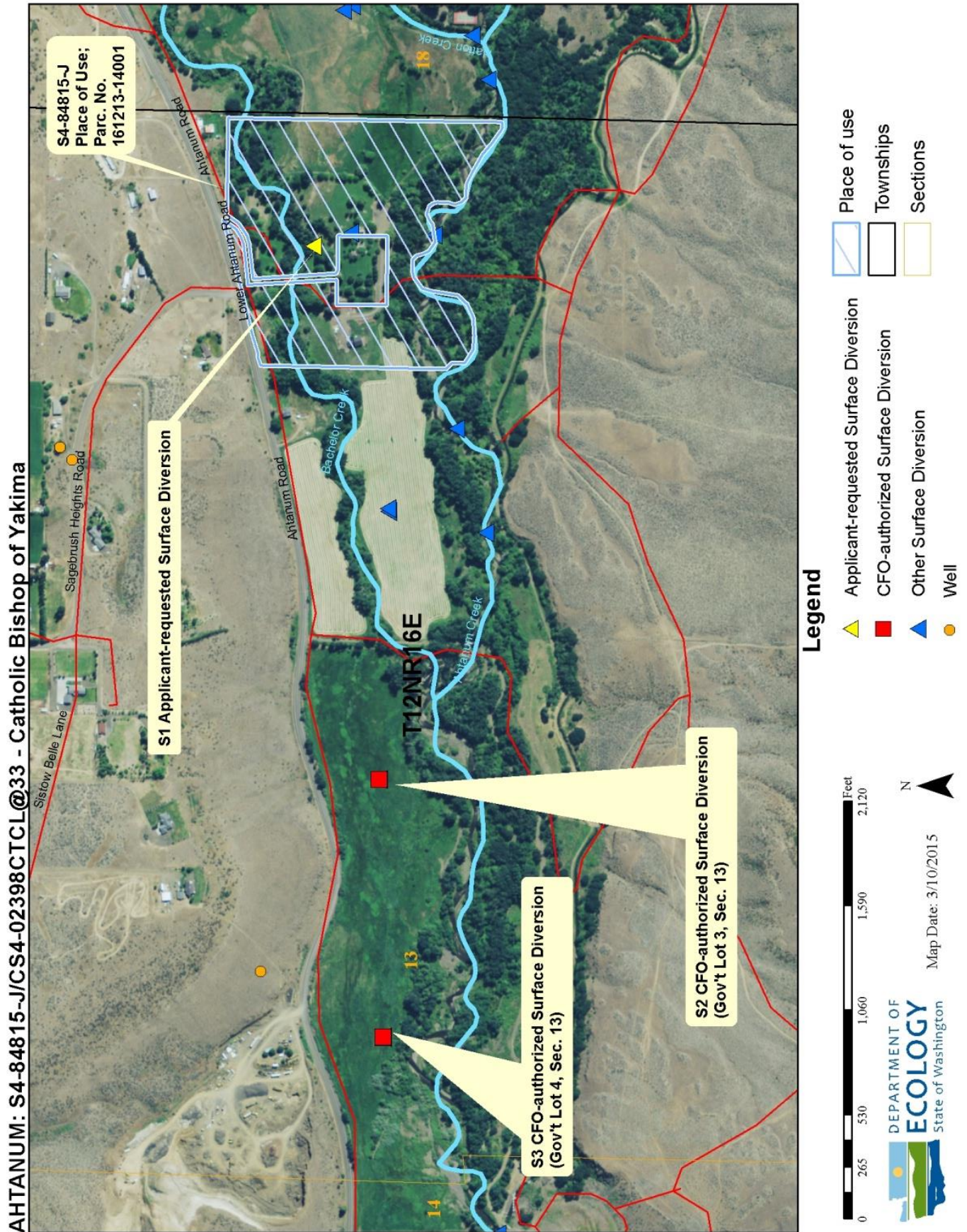
## REFERENCES

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Foxworthy, B., 1962, "Geology and ground-water resources of the Ahtanum Valley, Yakima County, Washington." USGS Water Supply Paper 1598, 108 p.

Golder and Associates, Fitch and Marshall Inc., 2004, "Ahtanum Creek Watershed Assessment." Redmond, WA, 587 p.

DRAFT



ATTACHMENT 2A



Diversionary works for subject right.

ATTACHMENT 2B



Pump motor data.

ATTACHMENT 2C



Diversionary works for subject right.

ATTACHMENT 2D



Diversionary works for subject right.